Introductory Lecture
on the
Certainty of
Medicine.
Delivered Novr 2nd 1795
& Novr 28th 1798

5

Gentlemen /

The uncertainty of medicine ~~has been~~ is a very common subject of complaint. It has been propagated by ~~philosophers~~ the enemies of our profession, and in many instances has been admitted by Physicians. The design of the present lecture is to inquire ~~into the truth of~~ how far the complaint is founded in truth, and to shew that it originates in ~~ignorance~~ a want of a due conception of the extent & usefulness of the science of medicine. ~~as in~~

In speaking upon this subject we are first led to ~~mention~~ remark that immense ~~attainments~~ number of truths ~~which~~

v i all the different states of fever, I shall mention in this place, ~~only three~~ but two of them which when left to themselves ~~generally~~ generally ~~often~~ prove fatal, but which in 99 cases ~~of~~ out an 100 yield to medi=cine. These are the pleurisy - the Dysentery. ~~& the intermittent fever~~ common.

have been ~~made~~ discovered & established in all the collateral sciences of medicine, particularly in Anatomy, Chemistry, Botany & the materia medica. ~~This must be admitted~~

But as the objections to the certainty of medicine are aimed chiefly ~~to~~ at the limited state of our knowledge of the Art of healing, exclusive of Surgery, I shall confine myself to a short detail of the diseases in which medicine affords certain & almost universal relief. —

These are ~~fevers of all kinds. Yet it will be said here~~ I know it will be said here that fevers are often fatal. This ~~happens~~ must happen while so many circumstances ~~appear~~

5 The universal one ~~the scourge of~~ disease ~~deadly~~ fatal in every case, the reproach of medicine now ~~unlawful embraces~~ ,, ~~to use the words of~~ yields in every case to mercury.

from the ignorance ~~&~~ fears & poverty of patients oppose regular & just practice, but where these circumstances do not occur, fevers are as much under the command of medicine as the itch, or the small pox —

2 of the diseases which affect the nervous ~~diseases~~ hysteria, madness, the Hysteria, the Hippocondriasis, ~~and the~~ locked Jaw, and several other convulsive affections are all more or less subject to medicine ~~when~~ it is applied in their recent State.

4 Cutaneous diseases yield in almost every instance to the power of medicine.

3rd ~~4th~~ Hemorrhages & Dropsies in every part of the body ~~have been~~ are daily prevented, or cured.

~~The Small pox~~ It is true the

practice in some of those diseases, is not uniformly successful. ~~some Physicians~~ But the fault ~~to~~ here lies with Physicians, & not in the Science of medicine. It is no objection to the certainty and usefulness of the compass, ~~that~~ the natives of Kamscatka still navigate their vessels by ~~hug-~~ coasting, ~~ging a leaf home~~, nor does the characters used by ~~of~~ the Chinese in writing call in question the advantages of the summary mode of conveying ideas ~~pitching forwards~~ by means of an alphabet.

I contend for the certainty of the Science of medicine abstractly considered, not for the certainty of its practice ~~that knowledge which of the~~

~~profession~~ as it is exercised by ~~many~~ Physicians. Many things concur to prevent the ~~advantages of the~~ discoveries which have been made in medicine from becoming generally useful; such particularly as the want of reading & observation among Physicians, and an ~~indis-~~ unwillingness ~~position~~ to adopt new and unpopular remedies. ~~which are recommended by more is produced with persons to whose merit they are unwilling to do homage.~~ But this does not militate against the certainty of medicine, any more than

The certainty of medicine is often limited by the want of fidelity or punctuality in patients in complying with the prescriptions of their physicians, & ~~in sickly seasons~~ by the inability of Physicians in sickly seasons to visit their patients ~~at~~ at those hours in which alone their prescriptions can be applied with success. — The ~~mortality~~ prevalence of error in medicine ~~in a city or~~ moreover ~~counting often~~ sometimes ~~affects the influence~~ prevents ~~of~~ just ~~&~~ & successful practice in a city or country, for as ~~many~~ Physicians of luminous minds often diffuse rays of

a man's shutting his eyes at noon day militates against the the arguments in favor of the existence of light. — But ~~for this~~ again,

It is said ~~that medicine~~ by the enemies of ~~medicine~~ our profession that Surgery is ~~a~~ more certain ~~in the relief it affords~~ & therefore more useful than medicine. This Opinion is general, but a little reflection will shew that it is not just. ~~The~~ Objects of Surgery compared with those of medicine are in the ratio of one to twenty, of course the How different is

knowledge into sick rooms which they are not permitted to enter, so Physicians of ~~dark minds~~ a contrary character often spread their errors by means of their patients or pupils into rooms, where they defeat the best concerted plans of cure, & thus lessen the ~~apparent certainty~~ success & credit of medicine.

[The ~~mortality produced by all~~ of diseases these causes does not detract from the certainty of medicine, for it belongs to the perfection of our science to predict death with certainty from the neglect of ~~proper~~ a proper remedies applied in ~~their~~ time, ~~or~~ manner, as much as it ~~does~~ to cure diseases] —

Consultations are a further source

the issue of amputation or cutting for the stone, to inoculation for the small pox? & How few are subject to the diseases which ren=der the former operations necessary to save life! whereas the small pox affects the whole human Race, & according to some writers destroys a 6th part of all who are seized with it in the natural way. But surgery is not an independant art. It borrows much of its certainty & useful=ness from medicine, ~~for~~

of the Uncertainty of ~~medicine~~ our profession. The boldness in practice which is inspired by the Union of reason and experience in a man of genius, is often ~~defeated~~ frustrated by the ~~mechanical~~ formalities of an old, ~~and~~ or by the timidity ~~or teaching of~~ a young Physician, by which means medicine is often rob-bed of its merited & well earned honors. But there are frequently two, or more methods of curing the same disease. Now in Consultations between Physicians who have been in the habit of curing the same disease by different remedies, no fixed plan of cure is adopted, & the patient dies, under a half way practice between two methods, either of which might have cured him, had it been pursued

particularly from Bleeding, Diet Bark, wine and Opium.

I have said that the Uncertainty of medicine has sometimes been admitted by Physicians. It may be useful in this place to inquire into the causes of this seeming candor in the members of our profession. It appears to originate in Indolence, or a disposition too torpid to enquire into the extent and certainty of the principles of medicine: ~~the~~ body in this case encroaches upon the

to its full extent. The mortality of diseases, produced by all these causes, does not detract from the certainty of medicine, for it belongs to the perfection of our science, to predict death with certainty from the neglect, or misapplication of remedies, as much it does to cure diseases.

It has been said that there is no certainty in the operation of medicines. This assertion is founded upon a superficial view of the power of ~~the~~ medicines, & an ignorance of the laws of the Animal oeconomy. - I grant that ~~to vomit~~ Ipecacuanha will not always excite a vomiting, nor Jalap, uniformly discharge the contents of the

2 p: 9

A superstitious respect for preceptors in medicine, and for eminent Physicians has contributed very much to prevent ~~the~~ the attainment of ~~proper confidence in the~~ certainty in ~~of~~ medicine. There are few diseases more easily explained, or more certainly cured, than the internal dropsy of the brain in its early stage, but it is generally considered as incurable. ~~only~~ only because Dr Cullen has not classed it among inflammatory diseases, and because Dr Monroe has declared that he never cured a case of it in his life. —

mind, & ~~abstracts from it all~~ its ~~natural activity~~. ~~for~~

3rd Incapacity is another source of Scepticism in medicine. men deny the existence of truths which they are unable to comprehend.

4th Envy in the 2nd place shuts the mind up against ~~[illegible]~~ believing in the ~~the truths~~ certainty of medicine, more especially when discoveries are made in it by persons who are competitors for business or fame.

5th Vanity has a large share of influence in disposing Physicians

bowels, ~~but this does not invalidate~~ ~~the uncertainty of their character~~ ~~of medicines~~, ~~for~~ but if we are able to account for the failure of their ~~till in all cases the~~ operation, ~~is all~~ we ~~destroy~~ refute the objection to the ~~the~~ uncertainty of their character as medicines. now we know that ~~an~~ inflammation, ~~or~~ and congestion in the brain impart a torpor to the stomach & alimentary canal, and this knowledge constitutes a part of the certainty of medicine for which I am contending. Thus a knowledge of the variations of the ~~comp~~ magnetic needle in certain latitudes constitutes a part of ~~the~~ perfection of the science of navigation. — go back to p. 6.

to deny the certainty of medicine.
~~a reason. This~~ Scepticism in
medicine presupposes ~~that~~ a Physician
has examined the ~~evidences of~~ arguments in
favor of certain
opinions, and that his decision
is founded upon a defect of evidence
to support them. Now this being
seldom the case, the decision ~~is~~
should by no means operate against the certainty of medicine.
go to p. 12.
~~an act of imposture & is alby~~
~~characteristic~~
~~declaratory of vanity & impudence.~~

~~I have sometimes~~ Did these
medical sceptics when they
speak of the uncertainty of
medicine, confine themselves

to the first person of the singular number, they ~~had~~ would be more excusable, but when they include the whole profession by declaiming as they often do upon difficult subjects that "we know no=thing about them" they ~~discover a degree~~ add to their vanity a large share of impudence.

[A 6th source of scepticism in medicine is derived from infidelity in religion. — men who have renounced the evidence of their reason & senses upon moral & theological subjects, ~~are~~ cannot be consistent ~~upon~~

[without denying their evidence upon medical subjects. This Scepticism in medicine is extremely flattering to the Sceptics in Religion; ~~and hence we find deistical physi=~~ ~~=cians are often prefered by them.~~ ~~They~~ It is natural for such persons to conclude that if, in a science ~~to~~ ~~all~~ whose facts are obvious to our senses, there is ~~so much~~ no certainty; equal or greater uncertainty must hang over the doctrines of Christianity] ~~Having pointed out the sources from classes so unfavorable for~~ Having pointed out the sources of Scepticism in medicine, ~~it will~~ among Physicians, I shall only

~~be unnatural to expect the most~~
~~impure streams. the most obvious~~
mention
one of its ~~most obvious~~ effects,
and that is the most palpable
fraud. ~~With what face~~ does ~~cass~~
a Physician charge for services
which he has rendered at random
to his patients? ~~It~~ why does not
~~the~~ ~~his~~ hand of a Physician tremble in writing
a prescription for a disease
the cause of
of which he confesses himself to
be ignorant? ~~and~~ with what face does
a Physician ~~be~~
~~a Physician~~ charge for services
which he has rendered at ran-
-dom to his patients? ~~should~~
~~we employ an artifi~~ should an

V ~~I slave boards of~~ A Clergyman in One of the West India Islands ~~who~~ was one sent for, from a card table to visit One of his parishoners who was dying, & who it was told him was in great distress about his future state. The Clergyman visited him, and upon returning to his seat at the card table, was ~~at~~ asked by One of the company how he had left ~~his~~ the dying man. He said "quite happy" for he had removed all his fears in a moment by letting him into the secret." — "What secret" said the gentleman — "why — that there is no future state answered the Clergyman,

artificer after failing in ~~building~~ erecting a piece of machinery ~~a house, tell his employer, that he knew does and payer~~ tell his employer that he was ignorant of the business he had undertaken, ~~would be~~ what should we think of him? would ~~be~~ we justify an extravagant charge for his labor, or would we not rather approve of that sentence of a Court, which should ~~compel~~ punish "him as an Impostor ~~for~~ by compelling him to make "restitution" for the money he had ignorantly expended.? V

~~Let the sceptic in medicine act~~

and that religion was all nothing but a fable. equally criminal is that Physician who ~~denies the certainty of medicine~~ exercises the profession of medicine, and denies its certainty in most of ~~the~~ the dis: cases which come under his notice.

I have ~~known~~ heard of a Physician ~~to~~ of extensive business & reputation, to ~~all~~ whom ~~all that has been said upon~~ all the causes of Scepticism in medicine, that have ~~th of that~~ been enumerated, applied in the most extensive manner. ~~His reputation~~ This man's education was originally ~~very~~ slender, and his reading extremely limited. ~~His visits to his patients were short, & he generally~~ all subjects were

~~honestly. If he cannot attain to principles in it, let him resign the profession. He is a~~

[A speculative Sceptic in medicine may be ~~not~~ an honest man, but a sceptical physician who exercises the profession for his subsistence is as much an Impostor as a Person who exercises the functions of a Priest without believing in the principles of Christianity].

We have already attained to certainty in at least 9 diseases out of ~~ten~~ ten. But this remnant of ~~parts~~ the premature dominion of death

more agreeable to him than medicine. He hurried from sick rooms to public dinners, and tea parties, where he usually spent four or five hours of every day, ~~and yet with this~~ ~~this~~ ~~character~~ ~~tes, de divided upon all subjects of controversy he maintained for me~~ ~~the~~ In all companies he spoke with contempt of the profession of medicine - and laughed at every attempt to apply ~~the~~ reason to it. And yet with this character, he ~~maintained~~ governed for many years the medical opinions & practice of the city in which he lived. A Brother Impostor

over the human body, shall not al=
=ways continue. Absolute certainty
I believe
is attainable in medicine. Yes - there
does not exist a disease for which
there does not exist a remedy. -
This must be true, or God would
not be ~~kind as~~ wise, powerful or good.
~~Kind as great~~
Hear this ye friends & Benefactors
~~of~~ mankind, who ~~have~~ sighed in
secret over the ~~pain &~~ misery which
diseases ~~have~~ produce in our world.
- ~~They~~ This misery shall have an end.
~~Death shall be~~ The empire of death
by means of disease shall shall
one day be limited, & old age shall

in medicine pronounced his Elogium when he died, by declaring "that he was the greatest physician that ever lived, for that he knew & acknowledged the Uncertainty of his profession"! —

I will moreover be able by means of this knowledge ~~to be~~ ~~& be led to prefer~~ ~~able~~ to distinguish ~~real physicians~~ rational & philosophical physicians, & to prefer them to ~~to~~ Quacks and Impostors.

finally be the only 17 outlet of human life.

This certainty ~~perfection in the science of~~ ~~medicine I believe~~ will probably be brought about in the ~~three~~ following ways. —

1 ~~The~~ A knowledge of ~~medi~~ the principles of medicine will become so general that the people at large by knowing, will avoid the remote, predisposing & exciting causes of diseases. They

2 The principles & ~~procep~~ operations of Chemistry will be so enlarged, as to enable mankind ~~by best do~~ ~~existence~~ to destroy the active qualities of the remote causes of diseases by ~~the~~ those powerful

agents - heat & mixture. - al-
-ready has Chemistry taught us many
things upon this subject. It has
taught us that fire will destroy
the contagion of the small pox, and
water the ~~miasmata &~~ contagions
and miasmata
of the plague & yellow fever. I
have heard a gentleman of a
philosophical character in London
ridiculed for saying that he believed
"the time would come when a
man should be able to put his
head in the fire without being
burnt". I do not think there is
any thing unphilosophical or extravagant in

v knowledge it has been justly
said is power, and philosophy
is the empire of art over na-
ture. — Dr Mitchill of N York ~~in a late~~
~~publication~~ has suggested many
ingenious hints upon the subject
of the gases which may lead us
to the certain means of destroying
them, & thereby of exterminating
malignant ~~& contagious~~ fevers from

the opinion. ~~Tho~~ ~~Did~~ we not see men breath & ~~co~~ act as usual under water by means of the diving bell? To breath & to ~~act~~ ~~live~~ under water by means of a diving bell, and to fly through the regions of the Air in a balloon, ~~a century ago~~ would have been thought equally improbable events a century ago. V. I have long believed that ~~the pri~~ such of prophecies of the old & new testaments as relate to the ~~fu~~ future changes in natural state of man, and of our earth, will be brought ~~of~~ about by natural means. There is to me therefore nothing

the catalogue of human evils.

+ Luke X. 19.

V. 3 by a Belief in the Unity of disease, and of debility being the predisposing cause of all its different forms will lead both patients & physicians to attack them in their forming state, at which ~~th~~ time they ~~often~~ generally yield to the most simple medicines. But where diseases come on as some do, without the premonitory symp:-toms of debility, ~~the does the if we may judge from~~ there is reason to ~~say~~ believe they may be cured if we are permitted to judge ~~of what~~ from what is passed, of ~~what~~ that which is to come. go to p 22

improbable in that declaration of our Saviour to his disciples, in which he says "Behold, I give you power to tread on serpents & scorpions and all the power of the enemy, & nothing shall by any means hurt you" whether ~~it~~ the declaration be viewed by a philosophical, or a christian eye. ~~It was~~ There can be no=thing in the poison of serpents or scorpions, more ~~so~~ destructive to life than arsenic, and yet that deadly mineral we know is rendered harmless by being com=bined with sulphur.

V. ~~Lord Bacon says Knowledge is power. Philosophy is the expression of~~

~~Art over compise nature~~.

~~3 Diseases shall~~

The 3rd and last method in which medicine shall ~~ca~~ be brought to perfection will be, ~~that~~ diseases will in all cases yield to medicine. ~~Then~~ The diseases which we cal=
=not cure, I have said are very few compared with those which do cure, ~~and~~ nor is this all, the diseases which still elude the ~~ca~~ skill of Physicians are by no means so formidable, as those which have been subd=
=ued by them. The Epilepsy

offers much less violence to the system than a yellow fever, and this disease we now know is daily cured ~~by~~ not only by Physicians, but by ~~the~~ nurses, other persons, as ~~un~~acquainted with medicine and ~~free negroes~~. ~~within the last twenty years the~~ Our faith & hopes upon this subject, receive great encouragement from the triumphs of medicine within the last twenty years. ~~Fevers~~ ~~The~~ Fevers are much less mortal ~~by~~ ~~the difference between 1 & 10~~ now than they were 30 years ago.

The Locked Jaw has ceased ~~to~~

in some measure to be the terror of the planters in ~~the several~~ those West India Islands in which ~~the~~ tonic remedies have been adopted. The pulmonary consumption has been cured where a belief of its being a chronic pleurisy has led to the early use of copious, or frequent use of blood letting. Dropsies & hemorrhages have been much less fatal since they have been considered & treated as symptoms of a general fever. The gout is no longer considered as the reproach of our art. It has

yielded to the same remedies as the different states of fever. Cancers are as easily prevented as any other disease by the early extirpation of tumors in glandular parts of the body. ~~have lately been deprived in a great degree of their power deadly influence upon human life by means of a medicine which ap=pears to act specifically upon the extreme vessels thereby dis=posing them to a new healthy action.~~ But ~~these~~ modern dis=coveries have gone further. They have taught us to renew the motions of life where they appeared ~~to~~ be extinguished by

death. Hitherto ~~[illegible]~~ recupita-
tion has been confined only to
persons who have ~~[illegible]~~ been
supposed to be dead from drowning
or ~~by~~ from other accidents. But the time
I believe will come, when the
labors of Science & humanity will
be employed in recovering persons
who appear to die from ~~fevers~~
many other causes. [~~from fevers~~] We particularly
are authorized to adopt
this opinion ~~not~~ by the ~~[illegible]~~ discoveries
which have lately been made of the
~~cause~~ production of animal life by stimuli,
and by the light ~~which~~ observations & dissections

have lately thrown upon the external ~~appearances of~~ ~~upon the~~ ~~causes of~~ ~~death the~~ and internal appearances of the body after death from fevers. motion which is one of the operations of life, certainly takes place after respiration ceases, and after persons who have had ~~die of~~ fevers, are supposed to be dead. This is evident in the accumulation ~~of the trans~~ of heat in positive as parts in the absorption, or diffusion of ~~water~~ stagnating of the body in the change of the fluids — countenance from a gloomy, to a plaid form, in the occasional appearance ~~[illegible]~~ of a red color in one, or in both the cheeks, & in ~~any~~ the diffusion of a yellow

color after the whole, or a part of the body. This last appearance was frequently observed in the yellow fever in the year 1793 in persons after death who did not discover the least tinge of yellowness upon their bodies before they died. But this motion in the surface of the body has gone much further. ~~After death~~. Sweats have sometimes been observed to take place for many hours, & in one instance ~~which~~ several days after death. It occurred in the case of ~~Miss Henry the celebrated actress~~ a Lady who died in this city of ~~last winter~~ in 1794 the

maniacal state of fever. ~~to~~ The Stiffness of the Limbs which so soon succeeds death, is probably in many cases, the effect of ~~tow~~ general convulsion, and may hereafter be discovered to be nothing but a chronic spasm of the muscular system. — The internal appearances of the body after death from fevers, still more favours the idea of the possibility of extending the benefits of resuscitation to ~~the~~ persons ~~cases~~ supposed to be dead from ~~fever~~ those diseases. ~~[Many disputations then the origin viscera to be found~~

excep

Death from fevers I shall say here=
=after occurs from one of the three
following causes. ~~viz~~ namely: ~~effusion of~~ The
disorganization of parts
~~blood serum or blood into organs~~
whose actions are essential to
life by, ~~the effusion of blood~~ excess of morbid excitement, congestion ~~fever~~ in=
=flammation, or mortification.
2ly from such a change in the fluids
as renders them unfit for the
purposes of life, and 3ly ~~lastly~~ from
the ~~total~~ exausted state of the excite=
=ment & excitability of the system
which renders it incapable of
being acted upon by the stimulus
of medicine. Death from the

two last causes rarely occurs in acute fevers which terminate in 3, 5, 7, 9, or 11 days. Dissections shew, that in nearly all cases of ~~fever~~ death from fevers, the viscera are in a state of ~~inflammatio~~ disorganization, but in many cases this disorganization is very trifling, & in some cases in which marks of congestion have appeared in the viscera during sickness, there are no appearances of disorder after death. Now in all these cases of small disorganization, or of the total absence of it, the remedies for reuscitation might probably be used with success,

for the excitement ~~of~~ of the system is suspended only, and not exhausted, and therefore might, by proper means be ~~[illegible]~~ easily restored. I suspect this ~~to be the case~~ case, to take place in all those cases in which death occurs in the paroxysm of a fever, or in the sudden absence of fever, & ~~in~~ after the use of powerful Emetics or purges, or ~~two~~ stimulating diet.

Under the influence of these opinions, I am disposed to believe that ~~millions~~ many thousands of people ~~who have~~ have been buried alive in all ages & in all countries. —

~~Too~~ were it possible for

us to be ignorant of the waking state which necessarily follows sleep, we should consider the restoration of a ~~human creature~~ man from a ~~prostrate state~~ recumbent posture, in which ~~all~~ most of the functions of the body, & all the faculties of the mind were suspended, to ~~recover~~ the sudden use of his reason and limbs, as an event equally ~~incredible~~ improbable with the resuscitation of a body apparently dead from a fever. — go to p: 35

~~Sacred~~ history does not inform us which of the progenitors

of the human race was the longest liver, but I have sometimes thought the survivors

In ~~my introductory~~ the 4th vol: of my medical ~~year~~ Inquiries & Observations ~~of last~~ I mentioned an opinion of Dr Hartley's upon the subject of the ~~advancement of medicine to~~ propagation of christianity by means of the science of medicine to which I ~~then~~ yield my full consent. He supposes that the healing art will be brought to such perfection that missionaries into pagan & mohamidan countries shall recommend & establish the doctrines of christianity by

V already has this prediction of Dr Hartley's
in part
unfulfilled. In one

performing ~~similar~~ cures by natural means, such as the apostles performed by supernatural power. — Yes — I believe they will not only ~~cure the plague, and~~ "heal all manner of diseases", but that they will by means equally natural, raise persons who are supposed to be ~~the~~ dead. — These triumphs over sickness & the grave, will not be easily or cheaply accomplished. ~~without a great expense of labor & position~~ ~~tion~~ ~~So~~ They will probably subject ~~expose~~ the authors of them to the same reproachful epithets to which

they exposed the apostles, for they will be equally contrary to received opinions & prejudices. But the worst minds that shall dare to ~~combat~~ from the grasp ~~the~~ death his cold ~~with descend into the cold regions~~ ~~of~~ and breathless prey, shall ~~not~~ have no dread of persecution. They shall rejoice in it. —

~~In contemplating these~~

~~This~~ The view, which I have given of the approaching perfection of the healing Art is not dictated by ~~my wishes~~ ~~no imagination~~ ~~warmed with desires for the happiness~~ my wishes alone. It is alike consonant to reason and revelation. In

contemplating the ~~delightful~~ change it will introduce into the state of our world, the heart swells with the most delightful emotions. Then shall ~~wasting~~ mortal ~~no~~ ~~no~~ ~~scourge shall~~ Epidemics cease to desolate our cities. Hos=pitals shall cease to be perpetual & Lazarettos the gm^n of fever and tears shall prisons to the sick. ~~Tears shall~~ no longer ~~cease to~~ follow ~~to~~ relations & friends to a premature grave. ~~cease to flow~~ ~~The lingering pains~~ ~~of~~ and grief for the premature death of friends & relations, shall then be known no more. Here I am tempted to repine at the present limited duration of human life. Long before this ~~happy era~~ revolution in

the health & happiness of mankind shall arrive, ~~we do~~ you & I Gent. shall be no more. — But a con=solation is still left us under the pressure of this mortifying thot. — If we cannot share in the hap=piness which we have ~~antic~~ destined for our posterity, we can at least contribute to produce it, by devo=ting our time & talents to the improvement of our science. [The we have lately shaken off an immense load of prejudice and error upon the subject of Govern=ment. Let us do the same thing

with prejudice ~~of~~ error in medicine.
~~Let us abandon the humble barques~~
~~in which we have hugged the~~ our native
~~shore, and venture upon voyages~~
~~of circumnavigation in our pre-~~
~~-sumption~~ many new remedies remain
yet to be ~~tried~~ discovered, and the extent &
force of ~~old~~ ones, remain yet to be
determined by new experiments.
~~The Earth~~ Baths of water, oil, air
and even, Earth have hitherto been
but feebly & partially applied in
disease. ~~we are acquainted with~~
~~but~~ Our knowledge of the ~~extreme~~
force of heat, ~~& Epastics~~ is pasties in which
I include Caustics & boiling water as

v The ~~active~~ benefits ~~to be derived~~ ~~from~~ of a proper direction of the ~~active principles~~ faculties of the mind, & ~~above all~~ particularly ~~from~~ of the principle of association remain yet to be ~~examined~~ applied to medicine.

well as ~~Spanish~~ blistering flies ~~as~~ in exciting the system is as yet limited by ancient habits & forms of prescription. Frictions, Exercise & even Labor, as remedies are equally administred by ancient measure. ~~It becomes ~~ ~~Let us~~ ~~to~~ forget all that we learned upon these & other articles of the materia medica, and ~~take them again~~ prescribe them in doses ~~and~~ that shall accord with our present systems of medicine. We have too long hugged ~~the~~ our native shores ~~of ignorance & prejudice~~ in medicine. Let us attempt a voyage of circumnavigation in medicine. The sweep which has lately attended the

V and mercury ~~which~~ once so ~~formidable~~ terrifying to sick people, has become in many families, a common domestic medicine. ~~Let us be encouraged by the~~

more general & copious use of the remedies of bloodletting & mercury in malignant fevers, ~~extension~~ ~~in this city~~, should encourage us to ~~the more liberal~~ similar intrepidity in the use of other remedies. — The prejudices against the lancet ~~will wear~~ now sleep with the fears which formerly prevailed against cool air, & cold water in fevers; for the same ~~so~~ Physicians ~~with horror the perfection~~ who a few years ago beheld with horror a stream of blood flowing from the arm of a patient, ~~with~~ in certain fevers, ~~with a kind of~~ because it was forbidden by Cullen & Brown, or harm now, prescribe the loss of pounds of blood in the same fevers without fear, and with nearly universal success. —

To ensure the certainty that has been predicted in medicine, it will be necessary to investigate and establish principles in our Science. ~~Did~~ ~~as~~ Was it possible for a Physician to attain to the antidiluvian age, & to ~~add~~ ~~a certain~~ collect facts during the whole of that time, they would be useless to him unless they were ~~connected by~~ combined & arranged by means of principles of some kind. Experience without ~~the~~ philosophy in

app^n of thoughts.

v *Senses* are employed to judge between truth & error. — Connected

medicine, is nothing but empi=
=ricism, and however much the
contradictions of theories, or the Uncertainty of human Reason in
medicine complained of, I ~~maintained~~ am satisfied
that there are more contradic=
=tions to be met with in books
upon those ~~the~~ subjects in which ~~the~~ ~~are~~
~~obvious to the senses of Physicians~~.
~~There are in all professions certain~~
~~cant~~ words which are used to
impose upon the credulity of
mankind. Conscience ~~religion~~,
honor ~~is war~~, and liberty ~~in~~
have ~~been the~~ long been employed
~~government have all been em=~~
~~=ployed~~

for this purpose in religion — law, & government. ~~The~~ ~~tissue~~ Experience has been the prosti=tute of medicine. Connected with ~~theory~~ principles (the science of medicine) ~~it~~ may be compared to the ~~stately~~ pillars of a magnificent building, but without them, it resembles the materials of the same build=ing scattered in a confused man=ner in a yard, so that the relation of ~~no one~~ none of them to each other can be known. It is by means of principles in medicine that a Physician can practise with

safety to his ~~practice~~ patients or satisfaction to himself. — They impart cautious boldness ~~to~~ alternately to all his prescriptions. They ~~enable him~~ ~~inspire him to unfold the diffim with confidence in~~ supply the want of experience in all new cases. — They ~~elevate him above fatigue~~ teach him to look down upon the ~~hasty~~ with contempt dulness ~~of~~ and pomp of ~~and prescriptions~~ medicine ~~and impudence of Quacks and impostors, whether they exercise this Arts with or without diplomas.~~ They elevate him above fatigue, and support him under the drudgery, mortifications

of the profession. — Between such a Physician, and the mere plodder in medicine, there is the same difference, that there was between Sir Isaac Newton after he com=pleted his discoveries in light & colors, and the Artist who manu=factured the glasses by which that illustrious philosopher exemplified his principles in optics. — After this account of the necessity, & advantages of principles in medicine you will not be dissipated gent: at my delaying, that my duty and inclinations unite to

But in this arduous business, I shall not labour alone. I anticipate the most vigorous support ~~from~~ to my principles from the doctrines which will be taught from the ~~chemical~~ chairs of Chemistry & materia medica by my colleagues ~~by my forwarder pupil~~ Dr Wood & Dr Barton house. ~~I congratulate gent. upon their appointment.~~ I know ~~his~~ the talents & qualifications of those gentlemen ~~to be equal to it~~ their, & I am not afraid to promise for them that they will not disappoint the expectations of their friends & the public.

We live gent. in a revolutionary age. Medicine has caught the spirit of the times. The system of Dr Boerhaave which had subjugated the greatest part of Europe & all America, yielded about 30 years ago to the system of Dr Cullen. ~~Its triumph was of short duration~~

as far as I am able 46 philosophy ~~—~~
determine me to teach the ~~theory~~
of medicine from this Chair. I
know the difficulty of the Under-
taking. This great man's ~~this~~
~~The Physicians of great~~ has
~~conquest~~ empire in medicine, ~~have~~
~~prescot day are exceedingly divided~~
lately been disputed & demolished by the ingenious Dr.
~~between the systems of Dr Boer~~
Brown. ~~Dr Culleen & Dr Brown. the~~
~~house,~~ of them
~~One is altogether erroneous, and~~
~~as one of them is altogether true,~~
~~It shall be my business to as~~
~~far as I am able~~ I shall endeavour, to expose
~~their~~ the ~~to~~ errors, & to establish the
truths contained in each of these
~~each of them.~~
systems
~~& shall~~ ~~And to reply their defects~~
by the detail of principles which

business ~~and business~~, I shall not labour alone. I anticipate ~~both~~ a vigorous ~~instruction and~~ support to my principles, from the doctrines which will be taught ~~by~~ ~~my former pupil~~ ~~present~~ from the chemical chair by my ~~the Professor of Chemistry, who will~~ former pupil Dr Woodhouse.

~~tomorrow~~ I congratulate you Gent.n ~~& the whole republic of science~~ upon his appointment. I know his talents & qualifications ~~are~~ to be equal to it, and I ~~I will~~ not afraid to promise for him that he will not disappoint the expectations of his friends or the public.

We live in a revolutionary age. Medicine has happily caught the spirit of the times. Dr Brown has demolished the systems of his immediately predecessor Dr Cullen, ~~but he has~~ without substituting ~~thing~~ better one in its room.

have been the result of the obser=
=vations, and, — [I am not
ashamed thus publickly to acknow=
=ledge,] of the mistakes both in
principle & practice, of ~~first and~~ ~~long~~
~~thirty~~ near forty years. — ~~In this difficult~~ ~~endeavor~~

[But who am I, or what
were my Fathers, that I should thus
attempt to teach new principles in
~~prescribing to expose a single~~
medicine?
~~or to establish a single truth in~~
~~medicine?~~ — Ascribe not gent.n the
~~or facts~~
boldness of the Undertaking, ~~to or~~
~~the facts of its execution~~ to any
thing in the faculties of my mind
gent. different, or superior to
your own, but resolve it wholly

into the sovereign pleasure of that Being, who often makes use of weak instruments to accomplish the purposes of his Goodness to mankind, in order ~~that~~ thereby to prevent a competition for the honor of such events, between his power and that ~~talents~~ of his creatures. Thus a ~~shep~~ Shepard's boy with a sling and a stone, destroyed the ~~pride and~~ strength & pride of a formidable Army, and thereby became the instrument of saving a ~~whole~~ nation] —

From a review of the subject

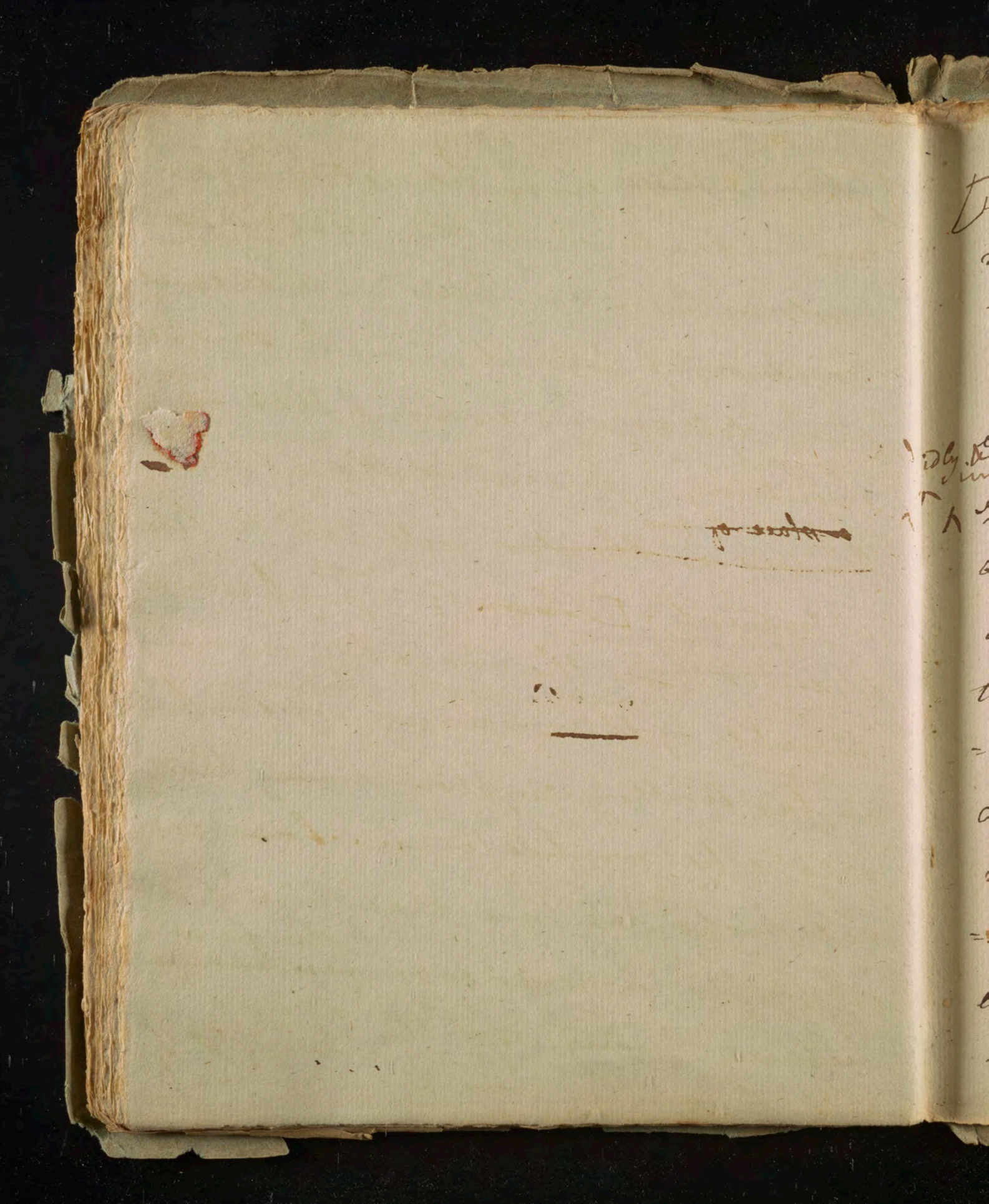
From a review of the subject of this lecture
of this lecture, Gent: I ~~am~~ natu=
=rally led to conclude ~~with by~~ with ~~ad=~~
=~~dressing to you a few articles~~ the
following reflections. —

1 ~~If~~ Has certainty been attained
in the cure of ~~any~~ a part of the diseases of the human body; then ~~you~~
~~to be~~ study those diseases, & their remedies
carefully, otherwise you will be crimi=
=nal in not being able to cure them.
~~Those Physicians are ~~all~~ always culpable~~

~~who~~
2 If certainty attainable in the cure
of all diseases? then renounce every
pursuit that ~~should~~ can interfere with
~~your studies, and~~ your exertions endeavours to
~~reduce the number of those diseases~~ lessen their mortality.

~~which still~~ It has long been a subject of controversy among Divines, whether perfection be attainable in morals ~~in this world~~. — ~~It is~~ However this controversy may be decided, I am sure the belief of it is calculated to advance moral order & happiness in the world. In like manner a belief in the certainty of ~~medicine~~ medicine, ~~our profession~~, is calculated to promote its improvement & perfection. ~~in medicine.~~ ~~as~~ the ~~perfection of our profession~~.

Much of your future ~~happ~~ success & comfort in Life Gent: will depend upon the manner in which you employ the approaching season for instruction. I have heard



It said that every barrel of sugar manufactured in the West Indies costs a human life. — with equal certainty I fear it may be said, that every dollar and evening that ~~is~~ are spent by a student of Physic at ~~a~~ ~~place of pu~~ ~~Circus or theatre~~, will cost the life of a patient. ~~Shall~~ It is not my business to decide upon the morality or immorality of ~~these~~ public amusements, but as far as they employ money that might be applied to purchase medical books, or time that might be employed in reading, or ~~revieuing~~ studying ~~lectures~~ the subjects of the lectures of the day, they ~~are~~ are certainly criminal.

idly it improperly

in a ~~to the~~ Student of medicine. Read Gent.
think — Observe — Observe — think
and read. — I submit all my opinions
to your strictest examination. I do
not ask, ~~for~~ nay more I ~~will not~~ Do not
wish them to ~~be~~ ~~admit of being~~ ~~their being~~ adopted,
Unless they are thoroughly examined,
and perfectly understood]. With these
~~declaration~~ remarks, I resume the labors &
studies of the winter. ~~Earnestly hoping~~ I have only to
~~imploring the great Deserver of men,~~
~~that it may please the Father of~~
add my best wishes that we may each of us be
~~success to conduct each of us, too~~
conducted by the hand of heaven, this
to the Conclusion of ~~our~~ Course of lectures in
the same ~~state of health~~ comfortable circumstances of health
& other ~~things~~ in which
we have begun it. —

1807

Lectures
Notebook

Gentlemen

The course of lectures you are now assembled to hear will consist of what are called the Institutes of Medicine & the practice of physic.

In the Institutes of Medicine are included Physiology - Pathology & therapeutics.

- Physiology considers the functions of the body in its healthy state.

Pathology considers the causes & seats of dis=

[illegible] principles

The practice of physic [illegible]

~~to~~ unfolded by therapeutics, to particular diseases - to their symptoms, & to the debility which precedes & follows them.

I shall begin with Physiology. I am aware that this important branch of

1807

Gentlemen

The course of lectures you are now assembled to hear will consist of what are called the Institutes of medicine & the practice of physic.

In the Institutes of medicine are included Physiology - Pathology & therapeuticks.

Physiology considers the functions of the body in its healthy state.

Pathology considers the causes & seats of diseases.

Therapeuticks treats of the general principles or indications of cure of diseases.

The Practice of physick applies remedies unfolded by therapeuticks, to particular diseases - to their symptoms, & to the debility which precedes & follows them.

I shall begin with Physiology. I am aware that this important branch of

branch of medical Science is considered as uncertain by some physicians & as useless and delusive by others. The late Dr Wm Hunter has even treated it with contempt in one of his introductory lectures. But quit: ~~the science should not suffer from this cause.~~ ~~for its~~ I maintain its usefulness from ~~What~~ the immense services it has rendered to all the branches of medicine. ~~The~~ Our knowledge of the circulation of the blood, is a part of physiology, and how extensive has been ~~its~~ the application of this discovery to Surgery and the practice of physic! Our knowledge of the uses of

the Lymphatics, - of the functions of the skin - of the influence of the air upon the blood & of the uses of the viscera, are all parts of physiology - and equally important with ~~the~~ our knowledge of the Circulation of the blood in ~~leading~~ teaching us to the Causes & Cure of Diseases. - It is true we are ignorant of the uses of ~~th~~ the different portions of the brain, but this does not militate against the utility of our knowledge of the parts of the body that have been named, any more than our ignorance of the qualities of certain unknown

plants, militates against our knowledge of the efficacy of the poppy, of Jalap, of Rhubarb or of the peruvian Bark.

It is said in order to depreciate Physiology, that Dr Haller who spent his life in physiological inquiries, was no physician & that he was remarkably ~~so an~~ unsuccessful ~~physician~~ in his practice. What proves too much proves nothing at all. The late Dr Chovet of this city was ~~one of the~~ a most minute and correct Anatomist, and yet he was known to be deficient in practical ~~acknowledged by all the physic~~ knowledge in Medicine. His recipes and other prescriptions furnished matter for ridicule wherever they were

men, or mentioned, and yet who will say upon this account that ~~[illegible]~~ a minute & correct knowledge of anatomy ~~is not~~ prevents a ~~[illegible]~~ physician becoming eminent in his profession? I might go on and ~~remark that [illegible]~~ mention the names of several eminent Chemists, & Botanists who have been bad physicians - and yet who will dare to say they were made so by their knowledge of Chemistry or Botany? - It is possible Dr Haller was deficient in those qualities of mind or temper, that constitute an acute & sagacious physician, but it is more probable his ~~was~~ want of success in

his practice was occasioned by his permitting his physiological studies so far to abstract his attention from ~~his~~ ~~the practice of physic, and~~ his duties to ~~of~~ his patients so as to prevent his being acquainted with the numerous & minute details that are necessary to constitute a great or successful physician.

Whatever may be the ~~fate~~ issue of my attempts to teach ~~physi~~ physiology, I shall not shrink from the undertaking from all that has been said of its uncertainty, or inutility. Indeed I consider myself as bound to undertake it not only by the duty I owe to the science of

Simple Anatomy, or the nomenclature of bones, muscles, blood vessels, nerves & viscera, ~~is nothing but the~~ may be compared to the Alphabet. It is by means of physiology that that Alphabet is converted into language. Again Anatomy may be compared to the outlines of a Portrait ~~a picture~~, ~~who~~ perfectly correct in its line and figure, but it is ~~while~~ physiology ~~may~~ which gives that picture ~~its~~ colouring, and its countenance.

From this view of the importance and

medicine, but by the respect I owe to the importance of the Anatomical Chair in this University, for if ~~life be not infused~~ the fires and functions of the parts which will be demonstrated ~~to you~~ in the Anatomical theatre be not explained to you as far as they are capable of being explained, all the knowledge you will acquire there, will ~~be of no help to you~~ profit you but little as physicians. It will resemble the four and twenty letters of the alphabet, lying ~~loose, together~~ unconnected upon a table. It is by means of physiology only that they can be ~~connected together into words, sentences and books, so as to become~~ converted into language.

Utility of physiology ~~I hope gent. you~~
will ~~[illegible] with you find~~ apply with the closest
~~of attention~~ to this branch of your studies.
— ~~I dare not promise you a complete~~
you will see the necessity of connecting it
with the study of anatomy. ~~of~~ Indeed they
should always go hand in hand in
a medical education, ~~[illegible]~~ One
remark more shall close this subject.
~~that is you the~~ study of physiology
or the Morbid pathology is by far the
most entertaining ~~part~~ branch of medicine.
~~This~~ Often has not only been acknowledged by physi-
cians, ~~and~~ ~~But so [illegible]~~ but by the
members of other professions — ~~[illegible]~~ hence the
~~[illegible]~~ ~~[illegible]~~ it has
been appealed to by divines, as contain-
ing

~~profitable to Students and others~~ —

Upon the subject of Physiology it is common for young Gentlemen to ask what books they shall read. I am sorry to say I cannot recommend any to you that accord with the principles & objects of this course which will be delivered from this Chair & which will be delivered from this Chair & Dr Haller's Elementa Physiologica in 8 quarto is an Encyclopædia upon this subject, but it is too extensive to be read in the course of a winter. There is an English Abridgement of it in two Vol: 8vo which may be consulted with advantage — Blumenbach's Richerand's physiology is likewise worth your reading. It may be had at Mr Dobson's, translated by Lithwell. ~~but also Richerand's~~ The Latter ~~a work~~ ~~your reading~~ I prefer. It only be a more minute & for I shall include in it the history of the faculties & operations of the human mind that is to be found in any of the common systems of Physiology.

stronger ~~proof~~ proofs of the existence
- power & wisdom - & goodness of a
Deity than any other part of
the material Creation.

In defending ~~the~~ theory, I have gent: admitted many of them to be erroneous, but in this I have conceded more than was just, for most of the theories that have existed in me=
=dicine, are nothing but a collection of supposed ~~false~~ facts. For Example. Dr Boerhaave's theory of fever is derived from ~~consists in~~ morbific matter, and lentor in the blood. this morbific matter he supposed to be expelled in the Sweats & sediment in the Urine which take place in the crisis of fevers. ~~and~~ now This is a false fact, if I may be allowed the expression. for the matter ~~thus~~ discharged, is nothing but one of the component parts of the blood, ~~dis=~~ conveyed out of the body ~~=charged~~ in consequence of the restoration of natural action ~~to~~ in the capillary vessels of the skin, and in the blood vessels of the kidneys. ~~now~~ ~~is the lentor the cause~~ The It is equally false

that a lentor in the blood is the cause of fever, for this lentor is what we now call size, or buff, and which is not the cause but the effect of fever. ~~The~~ ~~again~~ again. Dr Cullen in his theory of fever places the proximate cause of it ~~fever~~ in a spasm in ~~the~~ extremities of the blood vessels, in every part of the body, especially on the skin. now no such spasm takes place except during the chilly fit of a fever, and it in all those fevers, which come on without a chill, there is no spasm ~~in~~ any where. ~~It is~~ one proof ~~proofs~~. Dr Brown's ~~says~~ places the cause of fever in debility. now this is a false fact - Debility is only the predisposition of fever - ~~and~~ for fever consists in a root cases, not in debility, but in a preternatural morbid ~~fr~~ action in the blood vessels as I hope to prove to you hereafter.

~~Dr Cullen has said, that I beg you would remember~~ I might thus go on & shew that a hundred other ~~theories~~ collections of supposed facts, ~~which have have dignified with~~ upon particular dis=
=eases have been called theories, which are not entitled ~~to that epithet~~. A theory is, I have said a general principle deduced from a number of related facts that are all true. ~~Thus~~ I say, the passions are partly stimulating & partly sedative in their operation upon the body. This is a theory upon that. If the facts be true, ~~the~~ the theory, or the general inference from them, will be true likewise — if otherwise, — the theory will be false — From this you see there can be no false theory, without false, or supposed facts. Let the indolence ~~the~~ of phy=
=sicians who admit facts without sufficient examination, or the weakness of physicians

discover the certainty of our Science by predicting this fatal termination. Our inability to cure all diseases is a proof of only the imperfection of medicine, but even this imperfection, ~~upon~~ is ~~far~~ much less that it is supposed to be as far as it depends upon a physician. For few patients die of curable diseases, in which their deaths may not be traced to ~~late~~ delays in the application for medical aid — bad nurs=ing, or disobedience to medical prescripti=tions.

In admitting the imperfection of medicine, we place it upon a footing with all other Sciences. ~~The~~ Even the Science of Navigation is still imper=fect, and yet we do not upon ~~that~~ account reject the advantages that ~~are~~ we derive from the magnet, the Quadrant & lunar Observa=tions. ~~= of the Ships that are lost at Sea~~

who fabricate facts, alone be blamed for all
our false theories, ~~[illegible]~~ and if ~~on~~ those
false theories have done mischief in medi=
=cine, ~~let~~ those physicians only be blamed
who have furnished the false foundations
for them. It is to be ~~lamented~~ regretted that the ~~the~~
~~The~~ ~~the~~ ~~false~~ errors ~~of~~ fluctuation of ~~the~~
theories, erected upon ~~an~~ supposed facts, have
led to charges against the Certainty &
even usefulness of the Science of medicine.
Of its usefulness, I shall say nothing at
present. Of ~~its~~ the ~~Uncertainty~~ former charge against it,
I shall only remark
that ~~the~~ its imperfection has been mistaken
for its ~~Certain~~ uncertainty. The ~~cases~~ instances in which
physicians mistake a disease, or form a
wrong judgement of its issue in life, or
death, are very few. ~~The~~ In the ~~on~~ cases
which they are unable to cure, they still

~~perhaps very~~ of the few ships that are lost, only meet with accidents at sea, ~~from the Uncer-tainty of the Science of Navigation~~. Most of them are, like the cases of patients in curable diseases, the result of ignorance, or carelessness. They ~~call in Question the per-fection~~ prove the imperfection only - not the Uncertainty of the Science of Navigation.

~~Biot Physiology~~ Pathology

upon the subjects of ~~physiology~~

and Therapeutics, I know of no

Systematic books that I can recom-

mend to your perusal. They are

all built upon theories which I

~~are~~ which I do believe, and

which are contrary to the principles

upon those subjects which I shall

teach from this Chair.?

Upon the practice of physic

there are many excellent practical

books which I shall mention to

you when I come to that part

of our course. It is one, and but one of the modes of acquiring a knowledge of diseases. There are two other modes of acquiring that knowledge. These are from ~~but~~ public lectures, and = go to p. =